

SURGICAL OUTCOMES FOLLOWING POSTERIOR CAPSULE RUPTURE DURING PHACOEMULSIFICATION SURGERY

Purpose: To describe the intrasurgical events and management strategies following posterior capsule rupture during phacoemulsification and to analyze the outcomes following surgery.

Design: This study is a prospective observational study.

Methods: A total of 91 patients undergoing phacoemulsification surgery at Aravind eye hospital, Madurai between June 2012 and January 2013, with intraoperative posterior capsule rupture were included in this study. Preoperative, intraoperative and postoperative evaluation was done. The patients had a follow up upto 3 months (90 days) after surgery.

Results: Intraoperative posterior capsule rupture during phacoemulsification was found to occur most frequently during the step of nuclear emulsification (29.7%) and irrigation-aspiration of cortex (29.7%). Appropriate intrasurgical management ensured that a posterior chamber intraocular lens (PCIOL) was placed successfully in 96% of eyes. Most of the PCIOLs were placed in the ciliary sulcus (66%). Vitreous loss occurred in 55 patients (60.4%) and all underwent vitrectomy. Most frequent post operative complications included a raised intraocular pressure (11%)

followed by macular edema (6.6%). Postoperatively, 33% of patients needed additional surgical /laser procedures and 70.3% of patients needed additional topical or systemic medications to deal with complications. Only one patient had final best corrected visual acuity (BCVA) worse than the baseline BCVA subsequent to macular edema. As much as 96.5 % of patients had vision of 6/12 or better at final post operative follow up.

Conclusion: With appropriate management, phacoemulsification surgeries complicated by a posterior capsule rupture can have good outcomes.

Key words: Posterior capsule rupture, phacoemulsification, vitrectomy, complications following posterior capsule rupture, secondary procedures.